### FIGURE 1

035.IN002.E02-FIS \_\_035.IN023.E12-EI\$ 035.IN013.H09-FIS

> 035.IN013.C11-FIS 035.IN003.E06-FIS 035.IN001.E06-FIS

> > 035,IN020,D07-FIS 035,IN015,F06-FIS 035,IN003,G09-FIS 035,IN020,B12-FIS 035,IN020,G09-FIS 035,IN010,A09-FIS

prot

LTR

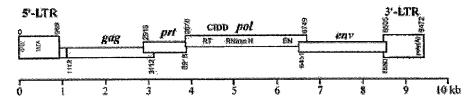
gag

pol

env

LTR

## FIGURE 2



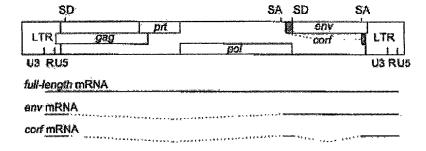


FIGURE 4

5'SS

3'SS 5'SS 3'SS

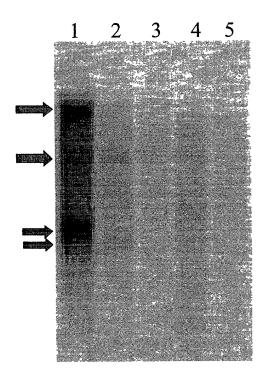
pol

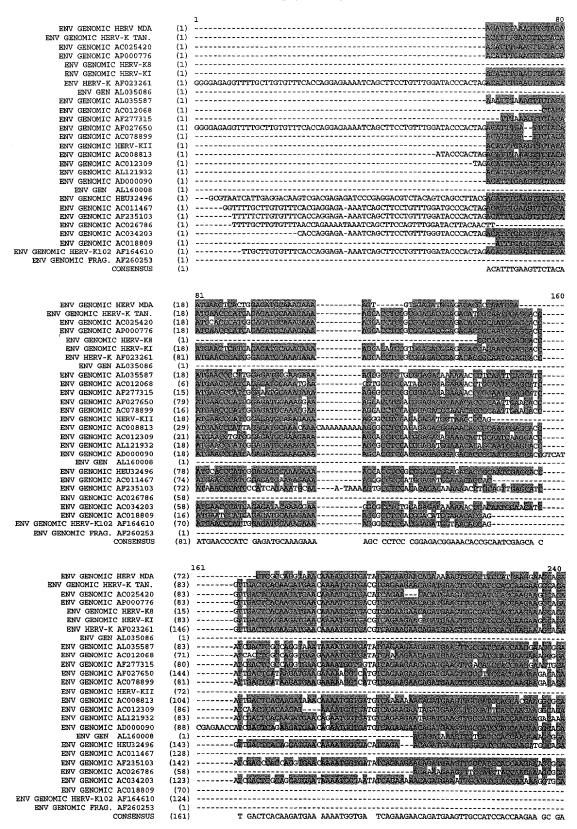
prt

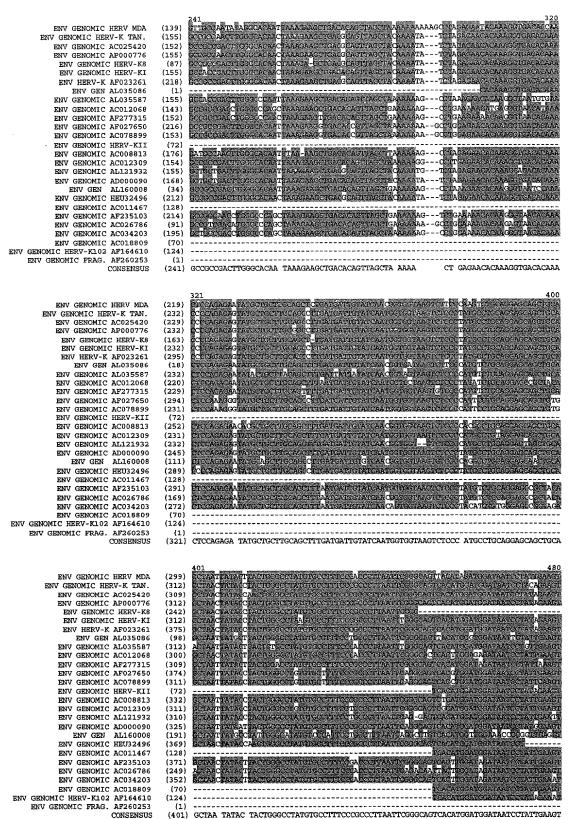
env

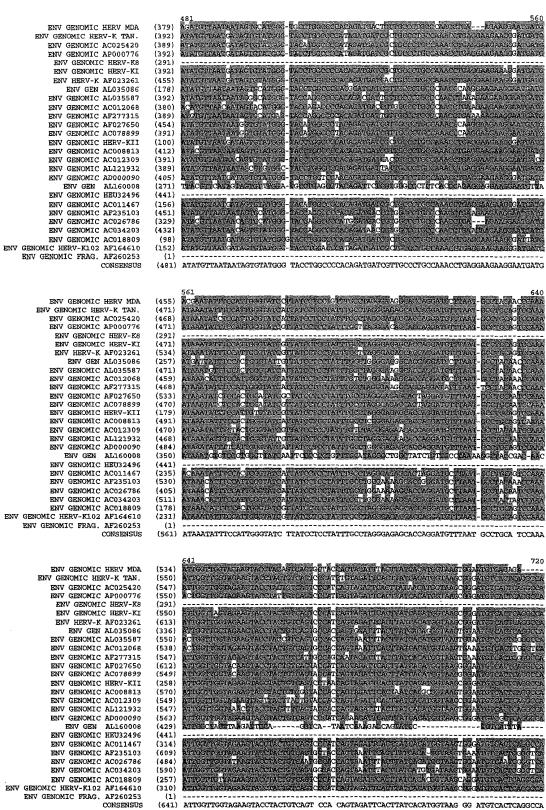
cORF

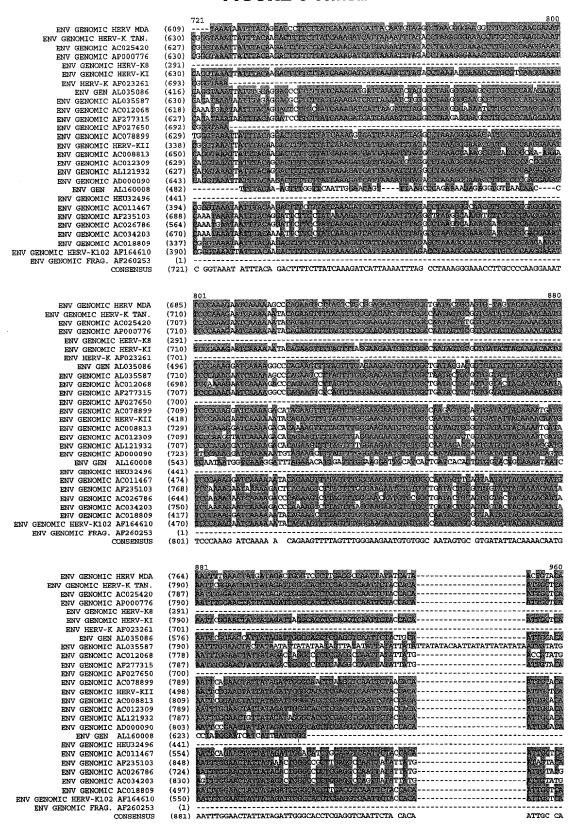
2/24

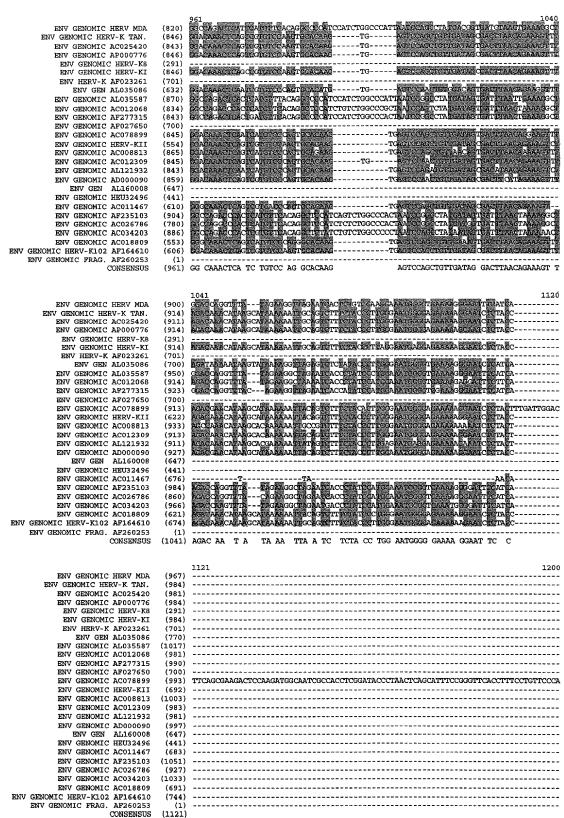




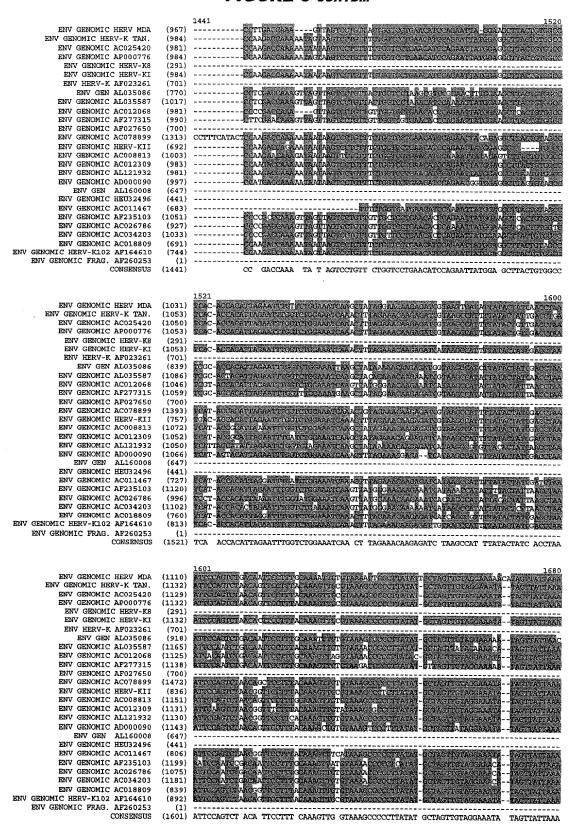


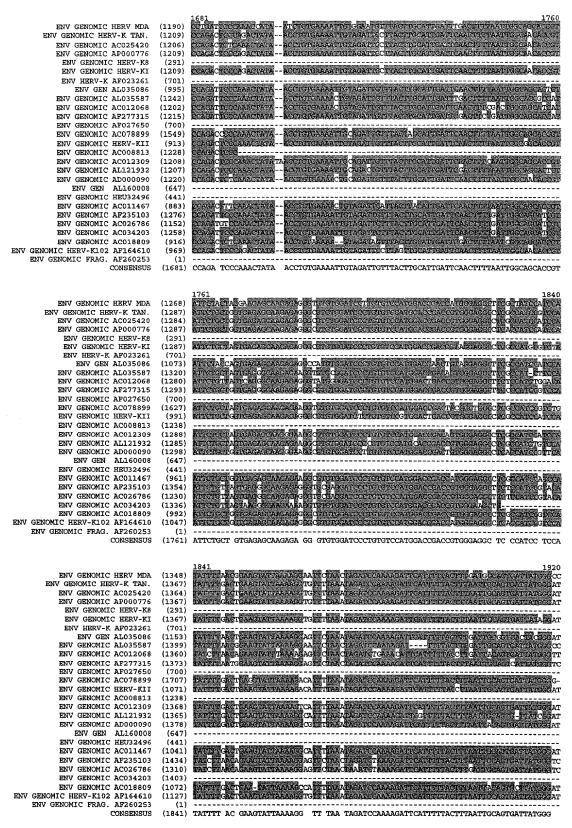


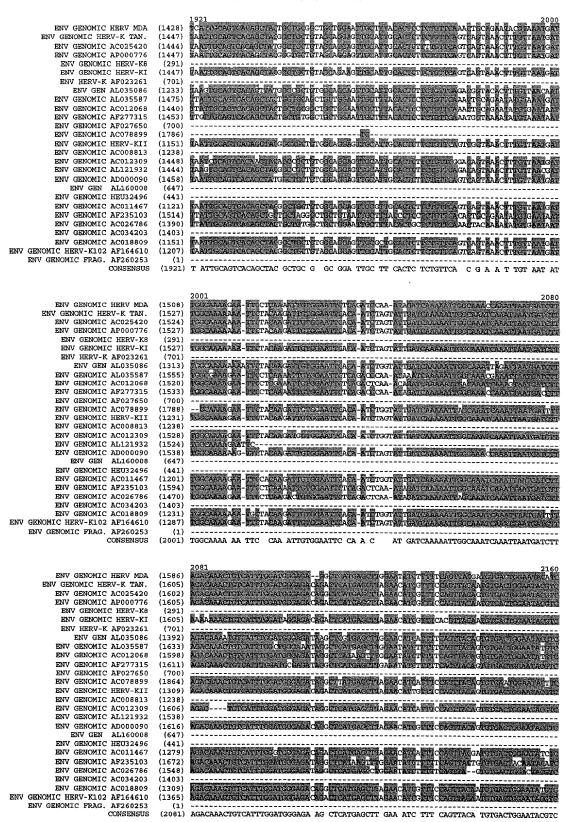


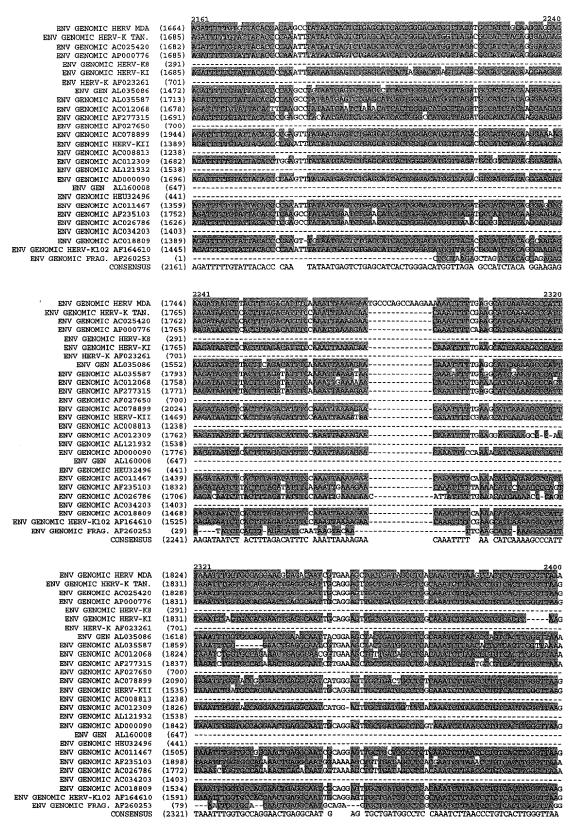


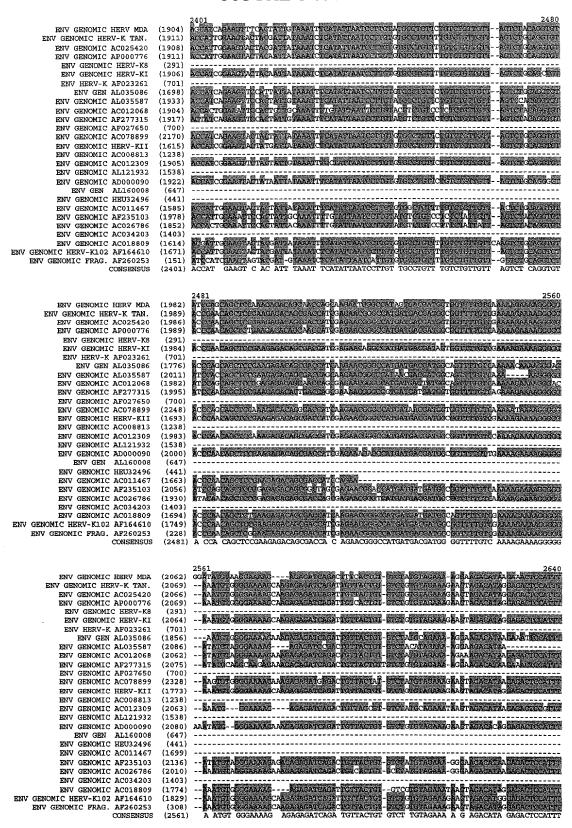
|     |  |                 | 1201  |
|-----|--|-----------------|---|
|     | ENV GENOMIC HERV MDA                                     | (967)           |   |
|     | ENV GENOMIC HERV-K TAN.                                  | 1 1             |   |
| •   | ENV GENOMIC AC025420                                     |                 |   |
|     | ENV GENOMIC AP000776                                     | (984)           |   |
|     | ENV GENOMIC HERV-KB<br>ENV GENOMIC HERV-KI               | (291)<br>(984)  |   |
|     | ENV GENOMIC AERV-KI                                      |                 |   |
|     | ENV GEN AL035086   | (770)           |   |
|     | ENV GENOMIC AL035587                                     | (1017)          |   |
|     | ENV GENOMIC AC012068                                     | (981)           |   |
|     | ENV GENOMIC AF277315                                     | (990)           |   |
|     | ENV GENOMIC AF027650                                     |                 |   |
|     | ENV GENOMIC AC078899                                     |                 | CCACCCGACTAACGCACATGCCCACTAGGGCGTGTCACACTCAGAAGTGTGAAACTCAACCGATCCCGCCCCTACCCC  |
|     | ENV GENOMIC HERV-KII                                     | ,               |   |
|     | ENV GENOMIC AC008813<br>ENV GENOMIC AC012309             | (1003)          |   |
|     | ENV GENOMIC AC012309<br>ENV GENOMIC AL121932             |                 |   |
|     | ENV GENOMIC AD000090                                     | (997)           | ***************************************   |
|     | ENV GEN AL160008   | (647)           |   |
|     | ENV GENOMIC HEU32496                                     |                 |   |
|     | ENV GENOMIC AC011467                                     | (683)           |   |
|     | ENV GENOMIC AF235103                                     | ,               |   |
|     | ENV GENOMIC AC026786                                     |                 |   |
|     | ENV GENOMIC AC034203                                     | (1033)          |   |
|     | ENV GENOMIC AC018809                                     | (691)           |   |
| SNV | GENOMIC HERV-K102 AF164610<br>ENV GENOMIC FRAG. AF260253 | (744)<br>(1)    |   |
|     | CONSENSUS  | (1201)          |   |
|     | COLIDATION   | (1200)          |   |
|     |  |                 |   |
|     |  |                 | 1281  |
|     | ENV GENOMIC HERV MDA                                     | (967)           |   |
|     | ENV GENOMIC HERV-K TAN.                                  | (984)           |   |
|     | ENV GENOMIC AC025420                                     |                 |   |
|     | ENV GENOMIC AP000776                                     |                 |   |
|     | ENV GENOMIC HERV-K8                                      | (291)           |   |
|     | ENV GENOMIC HERV-KI<br>ENV HERV-K AF023261               | (984)<br>(701)  | ***************************************   |
|     | ENV GEN AL035086   | 1 1             |   |
|     | ENV GENOMIC AL035587                                     |                 |   |
|     | ENV GENOMIC AC012068                                     | (981)           |   |
|     | ENV GENOMIC AF277315                                     | (990)           |   |
|     | ENV GENOMIC AF027650                                     | (700)           |   |
|     | ENV GENOMIC AC078899                                     |                 | ACCACTCCTCACCCAGCATCCATAAAAGCGCGCTGCACCTTTCGCACAGCGTGACTTCCCCTGGCGGACCAGTGAACCT |
|     | ENV GENOMIC HERV-KII                                     | (692)           |   |
|     | ENV GENOMIC AC008813<br>ENV GENOMIC AC012309             | (1003)<br>(983) |   |
|     | ENV GENOMIC AL121932                                     | (981)           |   |
|     | ENV GENOMIC AD000090                                     | (997)           |   |
|     | ENV GEN AL160008   | (647)           |   |
|     | ENV GENOMIC HEU32496                                     | (441)           |   |
|     | ENV GENOMIC AC011467                                     | (683)           |   |
|     | ENV GENOMIC AF235103                                     | ,,              |   |
|     | ENV GENOMIC AC026786                                     | (927)           |   |
|     | ENV GENOMIC AC034203<br>ENV GENOMIC AC018809             | (1033)<br>(691) |   |
| ENV | GENOMIC HERV-K102 AF164610                               |                 |   |
|     | ENV GENOMIC FRAG. AF260253                               | (1)             |   |
|     | CONSENSUS  | (1281)          |   |
|     |  |                 |   |
|     |  |                 |   |
|     |  | (0.68)          | 1361  |
|     | ENV GENOMIC HERV MDA<br>ENV GENOMIC HERV-K TAN.          | (967)           |   |
|     | ENV GENOMIC AC025420                                     | (984)<br>(981)  |   |
|     | ENV GENOMIC AC023420                                     | (984)           |   |
|     | ENV GENOMIC HERV-K8                                      | (291)           |   |
|     | ENV GENOMIC HERV-KI                                      |                 |   |
|     | ENV HERV-K AF023261                                      |                 |   |
|     | ENV GEN AL035086   | (770)           |   |
|     | ENV GENOMIC AL035587                                     | (1017)          |   |
|     | ENV GENOMIC AC012068                                     |                 |   |
|     | ENV GENOMIC AF277315<br>ENV GENOMIC AF027650             |                 |   |
|     | ENV GENOMIC AC078899                                     |                 | ACCGGAGAGCTCAATAAAGAAGATTTTTGCCCTCTTTGTCTTGCCTCTTGGCCTTATTGATCCACGGTGCCTTTCCATT |
|     | ENV GENOMIC HERV-KII                                     | (692)           |   |
|     | ENV GENOMIC AC008813                                     |                 | ***************************************   |
|     | ENV GENOMIC AC012309                                     | (983)           |   |
|     | ENV GENOMIC AL121932                                     |                 |   |
|     | ENV GENOMIC AD000090                                     |                 |   |
|     | ENV GEN AL160008   |                 |   |
|     | ENV GENOMIC HEU32496                                     |                 |   |
|     | ENV GENOMIC AC011467                                     |                 |   |
|     | ENV GENOMIC AF235103<br>ENV GENOMIC AC026786             |                 |   |
|     | ENV GENOMIC AC026786<br>ENV GENOMIC AC034203             |                 |   |
|     | ENV GENOMIC AC018809                                     | (691)           |   |
| ENV | GENOMIC HERV-K102 AF164610                               | (744)           |   |
|     | PART CRNOMEC PRACE APRACAGES                             | (1)             |   |
|     | ENV GENOMIC FRAG. AF260253<br>CONSENSUS                  | (1361)          |   |











|                                |        | 2641 2707   |
|--------------------------------|--------|---|
| ENV GENOMIC HERV MDA           | (2136) | FGATCEGTAC TAA  |
| ENV GENOMIC HERV-K TAN.        | (2146) | TOTTATOTACTAA   |
| ENV GENOMIC AC025420           | (2143) | NGTTAR (AR TAA  |
| ENV GENOMIC AP000776           | (2146) | RCTTAKSARCTAA   |
| ENV GENOMIC HERV-K8            | (291)  | 2000 200000000  |
| ENV GENOMIC HERV-KI            | (2141) | RTTANTAL TAA  |
| ENV HERV-K AF023261            | (701)  |   |
| ENV GEN AL035086               | (1931) | IGATCISTA TAA   |
| ENV GENOMIC AL035587           | (2146) | ****  |
| ENV GENOMIC AC012068           | (2138) | SCAAAAAGACCTGTACTTTGAACAATT   |
| ENV GENOMIC AF277315           | (2152) | WACCON TO THE PROPERTY OF THE |
| ENV GENOMIC AF027650           | (700)  | enar enarmons   |
| ENV GENOMIC AC078899           | (2405) | ICTTCICTACTAAGAGAAATTCTTCTGCCTTGAGATGCTGTTAA  |
| ENV GENOMIC HERV-KII           | (1850) | K-TTCK-HACTAA   |
| ENV GENOMIC AC008813           | (1238) | None statement  |
| ENV GENOMIC AC012309           | (2133) | RETTCHENAS CAAG   |
| ENV GENOMIC AL121932           | (1538) | and anomalous   |
| ENV GENOMIC AD000090           | (2157) | BETTCESEACTAA   |
| ENV GEN AL160008               | (647)  |   |
| ENV GENOMIC HEU32496           | (441)  |   |
| ENV GENOMIC AC011467           | (1699) | force who   |
| ENV GENOMIC AF235103           | (2212) | *CAAAAAGACCTGTACTTTGAACAATTGCTTTGCTCAGATGTTGTTAATTTGTAGTTTT   |
| ENV GENOMIC AC026786           | (2086) | **AAAAAAGA**CTGTACTTTAAACAATTGCTTTGCTGAGATGTTGTTAATTTGTAGCTTTCCCCAGCC   |
| ENV GENOMIC AC034203           | (1403) | ***************************************   |
| ENV GENOMIC AC018809           | (1846) | ICTC GTASTAAG   |
| ENV GENOMIC HERV-K102 AF164610 | (1906) | TOTTA TOTTA GALADATTCTT   |
| ENV GENOMIC FRAG. AF260253     | (385)  | #CTTC#EPACTAA   |
| CONSENSUS                      | (2641) | TG TGTAC  |
|                                |        |   |

|                             |       | 1 60   |
|-----------------------------|-------|--|
| GI_4185938_EMB_CAA76878.1_  | (1)   | MGQTKSKIKSKYASYLSFIKILLKRGGVKVSTKNLIKLFQIIEQFCPWFPEQGTI  |
| GI_4185942_EMB_CAA76881.1_  | (1)   | MGQTKSKIKSKYASYLSFIKILLKRGGVKVSTKNLIKLFQIIEQFCPWFPEQGTI  |
| GI_4185946_EMB_CAA76884.1_  | (1)   | MGQTKSKIKSKYASYLSFIKILLKRGGVKVSTKNLIKLFQIIEQFCPWFPEQGTI  |
| GI_5931704_EMB_CAB56602.1_  | (1)   | MGQTKTKSKYASYLSFIKILLKRGGVRVSTKNLIKLFQTTEQFCPWFPEQGNI  |
| GAG OF AB047240             | (1)   | MGQTKSKTKSKYASYLSFIKILLKRGGVRVSTKNLIKLFQIIEQFCPWFPEQGTI  |
| TRANSLATION OF ORF99        | (1)   | YKKAGLGQTKSKTKSKYASYLSFIKILLKRGGVRVSTKNLIKLFQIIEQFCPWFPEQGTI   |
| TRANSLATION OF G226TOP-LINK | (1)   |  |
| TRANSLATION OF G591TOP-LINK | (1)   |  |
| TRANSLATION OF LNCAP-GAG    | (1)   | MGQTKSKTKSKYASYLSFIKILLKRGGVRVSTKNLIKLFQIIEQFCPWFPEQGTI  |
| GAG106-135                  | (1)   |  |
| GAG186-215                  | (1)   |  |
| GAG46-75                    | , (1) | CPWFPEQGTI   |
| PDG-G1                      | (1)   |  |
| PGD-G2                      | (1)   |  |
| PGD-G3                      | (1)   |  |
| CONSENSUS                   | (1)   | CPWFPEQG I   |
|                             |       |  |
|                             |       |  |
|                             |       | 61120  |
| GI_4185938_EMB_CAA76878.1_  |       | DLKDWKRIGKELKQAGRKGNIIPLTVWNDWAIIKAALEPFQTEEDSVSVSDAPGSCLIDC   |
| GI_4185942_EMB_CAA76881.1_  |       | DLKDWKRIGKELKQAGRKGNIIPLTVWNDWAIIKAALEPFQTEEDSVSVSDAPGSCEIDC   |
| GI_4185946_EMB_CAA76884.1_  |       | DLKDWKRIGKELKQAGRKGNIIPLTVWNDWAIIKAALEPFQTEEDSVSVSDAPGSCTIDC   |
| GI_5931704_EMB_CAB56602.1_  |       | DLEDWKRIGKELKQAGRKGNIIPLTVWNDWPIIKAALEPFQTEDS-VSVSDAPGSCRIDG   |
| GAG OF AB047240             |       | DLKDWKRIGEELKQAGRKGNIIPLTVWNDWAIIKAALEPFQTKEDSVSVSDAPGSCVIDC   |
| TRANSLATION OF ORF99        | (61)  | The state of the s |
| TRANSLATION OF G226TOP-LINK | (1)   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~  |
| TRANSLATION OF G591TOP-LINK | (1)   |  |
| TRANSLATION OF LNCAP-GAG    | (56)  | DLKDWKRIGEELKQAGRKGNIIPLTVWNDWAIIKAALEPFQTKEDSVSVSDAPGSCWIDG   |
| GAG106-135                  | (1)   | DAPGSC IDC   |
| GAG186-215                  | (1)   |  |
| GAG46-75                    | (11)  | DLKDWKRIGKELKQAGRKGN   |
| PDG-G1                      | (1)   | DWKRIGKELKQAGRKG   |
| PGD-G2                      | (1)   |  |
| PGD-G3                      | (1)   |  |
| CONSENSUS                   | (61)  | DI. DWKRIG RI.KOAGRKGN DARGECTIDG  |

|  |  | 121 180  |
|--|--|--|
| GI 4185938 EMB CAA76878.1  | (116)  | NENTREKSQKETEGLHCEYVAEPVMAQSTQNVDYNQLQEVIYPETLKLEGKGPELVGPSE   |
| GI 4185942 EMB CAA76881.1  |  | NENTREKSQKETESLHCEYVAEPVMAQSTQNVDYNQLQEVIYPETLKLEGKGPELVGPSE   |
| GI 4185946 EMB CAA76884.1  |  | NENTRKKSQKETEGLHCEYVAEPVMAQSTQNVDYNQLQEVIYPETLKLEGKGPELVGPSE   |
| GI 5931704 EMB CAB56602.1  |  | NEKTRKKSQKETETLHCEYVAEPLMAQSTQNVDYNQLQEVIYPETLKLEGKGPELVGPLE   |
| GAG OF AB047240  |  | NEKTGRKSQKETESLHCEYVTEPVMAQSTQNVDYNQLQGVIYPETLKLEGKGPELVGPSE   |
| TRANSLATION OF ORF99   | (121)  |  |
| TRANSLATION OF G226TOP-LINK  | (1)  | ***************************************  |
| TRANSLATION OF G591TOP-LINK  | (1)  |  |
| TRANSLATION OF LNCAP-GAG   | (116)  | NEKTGRKSQKETESLHCEYVTEPVMAQSTQNVDYNQLQGVIYPETLKLEGKGPELVGPSE   |
| GAG106-135   | (11)   | NENTR KSQKETEGLHCEYV   |
| GAG186-215   | (1)  | wx   |
| GAG46-75   | (31)   |  |
| PDG-G1   | (17)   |  |
| PGD-G2   | (1)  | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~  |
| PGD-G3   | (1)  |  |
| CONSENSUS  | (121)  | NE T KKSQKETE LHCEYV   |
|  |  |  |
|  |  |  |
|  |  | 181 240  |
| GI_4185938_EMB_CAA76878.1_   |  | SKPRGTSPLPAGQVPVTLQPQKQVKENKTQPPVAYQYWPPAELQYRPPPESQYGYPGMPP   |
| GI_4185942_EMB_CAA76881.1_   |  | SKPRGTSRLPAGQVPVTLQPQTQVKENKTQPPVAYQYWPPAELQYRPPVESQYGYPGMPP   |
| GI_4185946_EMB_CAA76884.1_   |  | SKPRGTSPLPAGQVPVTLQPQKQVENKTQPPVAYQYWPPAELQYRPPPESQYGYPGMPP  |
| GI_5931704_EMB_CAB56602.1_   |  | SKPRGPSPLSAGQVTVTLQPQAQVENKTQLPVAYQYWPPAELQYRPPPESQYGYLGMPP  |
| GAG OF AB047240  |  | SKPRGPSPLPAGQVPVTLQPQTQVKENKTQPPVAYQYWPPAELQYLPPPESQYGYPGMPP   |
| TRANSLATION OF ORF99   | (181)  | SKPRGPSPLPAGQVPVTLQPQTQVKENKTQPPVAYQYWPPAELQYLPPPESQYGYPGMPP   |
| TRANSLATION OF G226TOP-LINK  |  | SQYGYPGMPP   |
| TRANSLATION OF G591TOP-LINK  | (1)  |  |
| TRANSLATION OF LNCAP-GAG   |  | SKPRGPSPLPAGQVPVTLQPQTQVKENKTQPPVAYQYWPPAELQYLPPPESQYGYPGMPP   |
| GAG106-135   | (31)   | 807  |
| GAG186-215   | (1)  | AGQVPVTLQPQKQVKENKTQPPVAYQYWPP   |
| GAG46-75   | (31)   |  |
| PDG-G1   | (17)   | ,  |
| PGD-G2   | (1)  |  |
| PGD-G3   | (1)  | A GOLD THE ODE ATTEMPT TO A STREET THE ODE ATTEMPT TO A ST |
| CONSENSUS  | (181)  | AGQV VTLQPQ QVKENKTQ PVAYQYWPP SQYGY GMPP  |
|  |  |  |
|  |  |  |
|  |  | 241 300  |
| GI_4185938_EMB_CAA76878.1_   |  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA   |
| GI_4185942_EMB_CAA76881.1_   | (236)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA<br>APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA   |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1   | (236)<br>(236)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA<br>APQGRAPYPQPPTRRLNPTAPPSRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA<br>APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA  |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1  | (236)<br>(236)<br>(233)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRQCYGTT  |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG_OF_AB047240   | (236)<br>(236)<br>(233)<br>(236)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRQCYGTT  |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG_OF_AB047240<br>TRANSLATION_OF_ORF99   | (236)<br>(236)<br>(233)<br>(236)<br>(241)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLMPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLMPTAPSRGGGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTVRLMPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLMPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET  |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG_OF_AB047240<br>TRANSLATION OF ORF99<br>TRANSLATION OF G226TOP-LINK  | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRCYGTT  |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG_OF_AB047240<br>TRANSLATION OF ORF99<br>TRANSLATION OF G226TOP-LINK<br>TRANSLATION OF G591TOP-LINK   | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(1)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRQCYGTT   |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG OF AB047240<br>TRANSLATION OF ORF99<br>TRANSLATION OF G226TOP-LINK<br>TRANSLATION OF G591TOP-LINK<br>TRANSLATION OF LNCAP-GAG   | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(1)<br>(236)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRQCYGTT   |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG OF AB047240<br>TRANSLATION OF ORF99<br>TRANSLATION OF G226TOP-LINK<br>TRANSLATION OF G591TOP-LINK<br>TRANSLATION OF LNCAP-GAG<br>GAG106-135   | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(1)<br>(236)<br>(31)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLMPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLMPTASRSGQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTVRLMPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLMPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRLNPTA  |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG OF AB047240<br>TRANSLATION OF ORF99<br>TRANSLATION OF G226TOP-LINK<br>TRANSLATION OF G591TOP-LINK<br>TRANSLATION OF LNCAP-GAG<br>GAG106-135<br>GAG186-215   | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(1)<br>(236)<br>(31)<br>(31)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLMPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLMPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLMPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRLNPTA   |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAB76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG OF AB047240<br>TRANSLATION OF ORF99<br>TRANSLATION OF G226TOP-LINK<br>TRANSLATION OF G591TOP-LINK<br>TRANSLATION OF LNCAP-GAG<br>GAG106-135<br>GAG186-215<br>GAG46-75   | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(1)<br>(236)<br>(31)<br>(31)<br>(31)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTA- ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET  |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAB76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG OF AB047240<br>TRANSLATION OF ORF99<br>TRANSLATION OF G226TOP-LINK<br>TRANSLATION OF G591TOP-LINK<br>TRANSLATION OF LNCAP-GAG<br>GAG106-135<br>GAG186-215<br>GAG46-75<br>PDG-G1   | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(1)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRQCYGTT- ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTA- ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET  |
| GI_4185942_EMB_CAA76881.1_ GI_4185946_EMB_CAA76884.1_ GI_5931704_EMB_CAB56602.1_ GAG_OF_AB047240  TRANSLATION OF G226TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2  | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(1)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRLNPTA   |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3  | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(1)<br>(1)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRRLNPTA  |
| GI_4185942_EMB_CAA76881.1_ GI_4185946_EMB_CAA76884.1_ GI_5931704_EMB_CAB56602.1_ GAG_OF_AB047240  TRANSLATION OF G226TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2  | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(1)<br>(1)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRLNPTA   |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3  | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(1)<br>(1)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRRLNPTA  |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3  | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(1)<br>(1)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRRLNPTA  |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3  | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(17)<br>(1)<br>(241)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRRLNPTA  |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG OF AB047240<br>TRANSLATION OF ORF99<br>TRANSLATION OF G226TOP-LINK<br>TRANSLATION OF LINCAP-GAG<br>GAG106-135<br>GAG186-215<br>GAG46-75<br>PDG-G1<br>PGD-G2<br>PGD-G2<br>CONSENSUS<br>GI_4185938_EMB_CAA76878.1<br>GI_4185942_EMB_CAA76881.1  | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(341)<br>(31)<br>(31)<br>(31)<br>(17)<br>(11)<br>(241)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTAPSRSGGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET   |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF GP99 TRANSLATION OF G226TOP-LINK TRANSLATION OF G991TOP-LINK TRANSLATION OF LNCAP-GAG GAG106-135 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185946_EMB_CAA76884.1 GI_4185946_EMB_CAA76884.1   | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(341)<br>(31)<br>(31)<br>(31)<br>(17)<br>(1)<br>(241)<br>(241)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTA  |
| GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG OF AB047240<br>TRANSLATION OF ORF99<br>TRANSLATION OF G226TOP-LINK<br>TRANSLATION OF LINCAP-GAG<br>GAG106-135<br>GAG186-215<br>GAG46-75<br>PDG-G1<br>PGD-G2<br>PGD-G2<br>CONSENSUS<br>GI_4185938_EMB_CAA76878.1<br>GI_4185942_EMB_CAA76881.1  | (236)<br>(236)<br>(233)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(17)<br>(1)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(254)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQDREPYPQPPTRRLNPTAPSRSGGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEETSKLHEIIDKSRKEGDTSKLHEIIDKSRKEGDT   |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF GS91TOP-LINK TRANSLATION OF GS91TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240   | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(236)<br>(31)<br>(31)<br>(31)<br>(41)<br>(11)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPSRSGQGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET   |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF G226TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF LNCAP-GAG GAG166-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99  | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(341)<br>(31)<br>(31)<br>(31)<br>(17)<br>(11)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(301)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTAPSRSGQGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET   |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF GZ26TOP-LINK TRANSLATION OF GS91TOP-LINK TRANSLATION OF LNCAP-GAG GAG166-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF GZ26TOP-LINK  | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(241)<br>(31)<br>(31)<br>(31)<br>(17)<br>(1)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>( | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTAPSRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET SKLHEIIDKSRKEGDT  |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA56602.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF GF99 TRANSLATION OF G226TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF LNCAP-GAG GAG166-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF G226TOP-LINK TRANSLATION OF G591TOP-LINK  | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(1)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(301)<br>(31)<br>(31)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTAPSRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET SKLHEIIDKSRKEGDT  |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF GZ26TOP-LINK TRANSLATION OF GS91TOP-LINK TRANSLATION OF LNCAP-GAG GAG166-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF GZ26TOP-LINK  | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(1)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(301)<br>(31)<br>(31)<br>(31)<br>(296)<br>(301)<br>(31)<br>(296)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPSRSGGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET  ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET SKLHEIIDKSRKEGDTSKLHEIIDKSRKEGDT  |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF GS91TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185942_EMB_CAA76881.1 GI_4185942_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF GF991TOP-LINK  | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(41)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(301)<br>(31)<br>(1)<br>(296)<br>(31)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPSRSGGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET   |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF G226TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF LNCAP-GAG GAG106-135 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF G226TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK  | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(1)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(301)<br>(31)<br>(31)<br>(31)<br>(296)<br>(301)<br>(31)<br>(296)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQSSKLHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTAPSRSGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRRLNPTA  |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF GS91TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185942_EMB_CAA76881.1 GI_4185942_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF GF991TOP-LINK  | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(41)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(301)<br>(31)<br>(1)<br>(296)<br>(31)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTAPSRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEETSKLHEIIDKSRKEGDT   |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA56864.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF GZ26TOP-LINK TRANSLATION OF GS91TOP-LINK TRANSLATION OF INCAP-GAG GAG166-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF GZ26TOP-LINK TRANSLATION OF GS91TOP-LINK TRANSLATION OF GS91TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1   | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(301)<br>(31)<br>(11)<br>(296)<br>(31)<br>(31)<br>(31)<br>(31)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTAPSRSGQSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRRLNPTA  |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA56864.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF GS91TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG166-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76881.1 GI_4185946_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF G256TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF LNCAP-GAG GAG106-135 GAG166-135 GAG166-75 PDG-G1 PGD-G2 | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(296)<br>(301)<br>(31)<br>(296)<br>(31)<br>(31)<br>(31)<br>(31)<br>(31)<br>(31)<br>(31)  | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET   |
| GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA56864.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF GZ26TOP-LINK TRANSLATION OF GS91TOP-LINK TRANSLATION OF INCAP-GAG GAG166-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS  GI_4185938_EMB_CAA76878.1 GI_4185942_EMB_CAA76881.1 GI_4185946_EMB_CAA76884.1 GI_5931704_EMB_CAB56602.1 GAG OF AB047240 TRANSLATION OF GZ26TOP-LINK TRANSLATION OF GS91TOP-LINK TRANSLATION OF GS91TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1   | (236)<br>(236)<br>(236)<br>(241)<br>(11)<br>(236)<br>(31)<br>(31)<br>(31)<br>(17)<br>(241)<br>(296)<br>(296)<br>(296)<br>(296)<br>(301)<br>(31)<br>(11)<br>(296)<br>(31)<br>(31)<br>(31)<br>(31)   | APQGRAPYPQPPTRRLNPTAPPSRQGSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRRGSELHEIIDKSRKEGDTEAWQFPVMLEPMPPGEGA APQGRAPYPQPPTRRLNPTAPPSRQSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTAPSRSGQSKLHEIIDKSRKEGDTEAWQFPVTLEPMPPGEGA APQDREPYPQPPTRRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET ALQGRAPYPQPPTVRLNPTASRSGQGGTLHAVIDEARKQGDLEAWRFLVILQLVQAGEET APQGRAPYPQPPTRRLNPTA  |

| GI_4185938_EMB_CAA76878.1_ GI_4185942_EMB_CAA76881.1_ GI_4185946_EMB_CAA76884.1_ GI_5931704_EMB_CAB56602.1_ GAG OF AB047240  TRANSLATION OF G226TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF INCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS          | (356)<br>(356)<br>(254)<br>(356)<br>(361)<br>(31)<br>(1)                          | 361 SSLSPSQFLQFKTWWIDGVQEQVRRNRAANPPVNIDADQLLGIGQNWSTISQQALMQNEA SSLSPSQFLQFKTWWIDGVQEQVRRNRAANPPVNIDADQLLGIGQNWSTISQQALMQNEA SSLSPSQFLQFKTWWIDGVQEQVRRNRAANPPVNIDADQLLGIGQNWSTISQQALMQNEA SSLSSSQYLQFKTWWIDGVQEQVRKNQATKPTVNIDADQLLGTGPNWSTINQQSVMQNEA SSLSSSQYLQFKTWWIDGVQEQVRKNQATKPTVNIDADQLLGTGPNWSTINQQSVMQNEA SSLSSSQYLQFKTWWIDGVQEQVRKNQATKPTVNIDADQLLGTGPNWSTINQQSVMQNEA  |
|--|---|--|
| CONSENSUS  | (201)   |  |
|  |   |  |
|  |   | 421 480  |
| GI_4185938_EMB_CAA76878.1_<br>GI_4185942_EMB_CAA76881.1_   |   | IEQVRAICLRAWEKIQDPGSTCPSFNTVRQGSKEPYPDFVARLQDVAQKSIADEKARKVI IEQVRAICLRAWEKIQDPGSTCPSFNTVRQGSKEPYPDFVARLQDVAQKSIANEKARKVI  |
| GI 4185946 EMB CAA76884.1_   |   | IEQVRAICLRAWEKIQDPGSTCPSFNTVRQGSKEPYPDFVARLQDVAQKSIADEKARKVI   |
| GI 5931704 EMB CAB56602.1_   | (254)   |  |
| GAG OF AB047240  | (416)   | ${\tt IEQVRAICLRAWGKIQDPGTAFP-INSIRQGSKEPYPDFVARLQDAAQKSITDDNARKVI}$   |
| TRANSLATION OF ORF99   |   | IBQVRAICLRAWGKIQDPGTAF-PINSIRQGSKEPYPDFVARLQDAAQKSITDDNARKVI   |
| TRANSLATION OF G226TOP-LINK  |   |  |
| TRANSLATION OF G591TOP-LINK TRANSLATION OF LNCAP-GAG   | (1)   | IEQVRAICLRAWGKIQDPGTAFP-INSIRQGSKEPYPDFVARLQDAAQKSITDDNARKVI   |
| GAG106-135   | (31)  | TRANGET CHICAGO TO CONTROL TO THE TRANGET OF THE TR |
| GAG186-215   | (31)  |  |
| GAG46-75   | (31)  |  |
| PDG-G1   | (17)  |  |
| PGD-G2   | (17)  |  |
| PGD-G3<br>CONSENSUS  | (1)<br>(421)  |  |
| CONSTRUCT  | (122)   |  |
| GI_4185938_EMB_CAA76878.1_ GI_4185942_EMB_CAA76881.1_ GI_4185946_EMB_CAB56602.1_ GAG OF AB047240 TRANSLATION OF ORF99 TRANSLATION OF G591TOP-LINK TRANSLATION OF G591TOP-LINK TRANSLATION OF LINCAP-GAG GAG106-135 GAG186-215 GAG46-75 PDG-G1 PGD-G2 PGD-G3 CONSENSUS                | (476)<br>(476)<br>(254)<br>(475)<br>(480)<br>(31)<br>(1)                          | VELMAYENANPECQSAIKPLKGKVPAGSDVISEYVKACDGIGGAMYKAMLMAQAITGVVL VELMAYENPNPECQSAIKPLKGKVPAGSDVISEYVKACDGMGGAMHKAMLMAQAITGVVL VELMAYENANPECQSAIKPLKGKVPAGSDVISEYVKACDGIGGAMHKAMLMAQAITGVVL VELMAYENANPECQSAIKPLKGKVPAGVDVITEYVKACDGIGGAMHKAMLMAQAMRGLTL VELMAYENANPECQSAIKPLKGKVPAGVDVITEYVKACDGIGGAMHKAMLMAQAMRGLTL VELMAYENANPECQSAIKPLKGKVPAGVDVITEYVKACDGIGGAMHKAMLMAQAMRGLTL  |
| GI_4185938_EMB_CAA76878.1<br>GI_4185942_EMB_CAA76881.1<br>GI_4185946_EMB_CAA76884.1<br>GI_5931704_EMB_CAB56602.1<br>GAG_OF_AB047240<br>TRANSLATION OF ORF99<br>TRANSLATION OF G256TOP-LINK<br>TRANSLATION OF G591TOP-LINK<br>TRANSLATION OF G591TOP-LINK<br>GAG106-135<br>GAG186-215 | (536)<br>(536)<br>(254)<br>(535)<br>(540)<br>(31)<br>(1)<br>(535)<br>(31)<br>(31) | GGQVRTFGKKCYNCGQIGHLKRSCPVLNKQNIINQAITAKNKKPSGLCPKCGKGKHWANQ   |
| GAG46-75   | (31)  |  |
| PDG-G1<br>PGD-G2   | (17)<br>(17)  |  |
| PGD-G2<br>PGD-G3   | (17)  |  |
| CONCENCIA  | /541)   |  |

|                             |       | 601  |
|-----------------------------|-------|--|
| GI 4185938 EMB CAA76878.1   | (595) | $\tt CRSKFDKNGQPLSGNEQRGQPQAPQQTGAFPIQPFVPQGFQGQQP-PLSQVFQGISQLPQGGGQGQP-PLSQVFQGISQLPQGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG$  |
| GI 4185942 EMB CAA76881.1   | (595) | $\tt CRSKFDKNGQPLSGNEQRGQPQAPQQTGAFPIQPFVPHGFQGQQP-PLSQVFQGISQLPQG$ |
|                             |       | CRSKFDKNGQPLSGNEQRGQPQAPQQTGAFPIQPFVPQGFQGQQP-PLSQVFQGISQLPQ   |
| GI 5931704 EMB CAB56602.1   | (254) |  |
| GAG OF AB047240             | (595) | CHSKFDKDGQPLSGNRKRGQPQAPQQTGAFPVQLFVPQGFQGQQPLQKIPPLQGVSQLQQ   |
| TRANSLATION OF ORF99        | (600) | CHSKFDKDGQPLSGNRKRGQPQAPQQTGAFPVQLFVPQGFQGQQPLQKIPPLQGVSQLQQ   |
| TRANSLATION OF G226TOP-LINK | (31)  |  |
| TRANSLATION OF G591TOP-LINK | (5)   | CRSKFDKNGQPLSGNEQRGQPQAPQQ   |
| TRANSLATION OF LNCAP-GAG    | (595) | CHSKFDKDGQPLSGNRKRGQPQAPQQTGAFPVQLFVPQGFQGQQPLQKIPPLQGVSQLQQ   |
| GAG106-135                  | (31)  |  |
| GAG186-215                  | (31)  |  |
| GAG46-75                    | (31)  |  |
| PDG-G1                      | (17)  |  |
| PGD-G2                      | (17)  |  |
| PGD-G3                      | (1)   | CRSKFDKNGQPLSGNE   |
| CONSENSUS                   |       | C SKFDK GQPLSGN  |
|                             |       | 661 673  |
| GT 4105020 BND G3356050 1   | ((54) |  |
| GI_4185938_EMB_CAA76878.1_  |       |  |
| GI_4185942_EMB_CAA76881.1_  |       |  |
| GI_4185946_EMB_CAA76884.1_  |       |  |
| GI_5931704_EMB_CAB56602.1_  |       | 01/2/2012 POO 3 2 PO   |
| GAG OF AB047240             |       | SNSCPAPQQAAPQ  |
| TRANSLATION OF ORF99        |       | SNSCPAPQQAAPQ  |
| TRANSLATION OF G226TOP-LINK | (31)  |  |
| TRANSLATION OF G591TOP-LINK |       |  |
| TRANSLATION OF LNCAP-GAG    |       | SNSCPAPQQAAPQ  |
| GAG106-135                  | ,     |  |
| GAG186-215                  |       |  |
| GAG46-75                    |       |  |
| PDG-G1                      | (17)  |  |
| PGD-G2                      |       |  |
| PGD-G3                      | (17)  |  |
| CONSENSUS                   | (661) |  |

|   |   | _  |
|---|---|--|
| GT 4105000 TUD GD366000 1   | (-)   | 1 60   |
| GI_4185939_EMB_CAA76879.1_  | (1)   | MLTDLRAVNAVIQPMGPLQPGLPSPAMIPKDWPLIIIDLKDCFFTIPLAEQDCEKFA  |
| GI_4185943_EMB_CAA76882.1_  | (1)   | MLTDLRAVNAVNAVIQPMGPLQPGLPSLAMIPKDWPLIIIDLKDCFFTIPLAEQDCEKFA   |
| GI_4185947_EMB_CAA76885.1_  | (1)   | MLTDLRAVNAVIQPMGPLQPGLPSPAMIPKDWPLIIIDLKDCFFTIPLAEQDCEKFA  |
| GI_5931705_EMB_CAB56603.1_  | (1)   | MIPKDWPLIIIDLKDCFFTIPLAEQDCEKFA  |
| ENV OF AB047240   | (1)   |  |
| TRANSLATION OF P386TOP-LINK   | (1)   |  |
| TRANSLATION OF POL349-LINK  | (1)   |  |
| LNCAP-GENOMEA-POLORF  | (1)   |  |
| TRANSLATION OF LNCAP-POL-GENA-GOODA   | (1)   |  |
| TRANSLATION OF ORF111-10  | (1)   |  |
| PGD-P1  | (1)   |  |
| PGD-P2  | (1)   |  |
| PGDP3   | (1)   |  |
| CONSENSUS   | (1)   |  |
|   |   |  |
|   |   |  |
|   |   | 61 120   |
| GI_4185939_EMB_CAA76879.1_  | (58)  | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC   |
| GI_4185939_EMB_CAA76879.1_<br>GI_4185943_EMB_CAA76882.1_  | (58)<br>(61)  |  |
|   |   | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC   |
| GI_4185943_EMB_CAA76882.1_  | (61)  | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC  |
| GI_4185943_EMB_CAA76882.1_<br>GI_4185947_EMB_CAA76885.1_  | (61)<br>(58)  | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC |
| GI_4185943_EMB_CAA76882.1_<br>GI_4185947_EMB_CAA76885.1_<br>GI_5931705_EMB_CAB56603.1_  | (61)<br>(58)<br>(32)  | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC |
| GI_4185943_EMB_CAA76882.1_<br>GI_4185947_EMB_CAA76885.1_<br>GI_5931705_EMB_CAB56603.1_<br>ENV_OF_AB047240   | (61)<br>(58)<br>(32)<br>(1)   | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC |
| GI_4185943_EMB_CAA76882.1_<br>GI_4185947_EMB_CAA76885.1_<br>GI_5931705_EMB_CAB56603.1_<br>ENV_OF_AB047240<br>TRANSLATION_OF_P386TOP-LINK  | (61)<br>(58)<br>(32)<br>(1)<br>(1)                                    | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC |
| GI_4185943_EMB_CAA76882.1_ GI_4185947_EMB_CAA76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF AB047240 TRANSLATION OF P38670P-LINK TRANSLATION OF POL349-LINK   | (61)<br>(58)<br>(32)<br>(1)<br>(1)<br>(1)                             | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC |
| GT_4185943_EMB_CAA76882.1_<br>GI_4185947_EMB_CAA76885.1_<br>GI_5931705_EMB_CAB56603.1_<br>ENV_OF_AB047240<br>TRANSLATION OF_P386TOP-LINK<br>TRANSLATION OF_POL349-LINK<br>LNCAP-GENOMEA-POLORF  | (61)<br>(58)<br>(32)<br>(1)<br>(1)<br>(1)<br>(1)                      | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC |
| GI_4185943_EMB_CAA76882.1_ GI_4185947_EMB_CAA76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF AB047240 TRANSLATION OF P386TOP-LINK TRANSLATION OF P01349-LINK LNCAP-GENOMEA-POLORF TRANSLATION OF LNCAP-FOL-GENA-GCODA  | (61)<br>(58)<br>(32)<br>(1)<br>(1)<br>(1)<br>(1)                      | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC |
| GI_4185943_EMB_CAA76882.1_ GI_4185947_EMB_CAA76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF AB047240 TRANSLATION OF P386TOP-LINK TRANSLATION OF P01349-LINK LNCAP-GENOMEA-POLORF TRANSLATION OF LNCAP-POL-GENA-GOODA TRANSLATION OF ORF111-10               | (61)<br>(58)<br>(32)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1) | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC |
| GI_4185943_EMB_CAA76882.1_ GI_4185947_EMB_CAA76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF AB047240 TRANSLATION OF P386TOP-LINK TRANSLATION OF POL349-LINK LNCAP-GENOMEA-POLOFF TRANSLATION OF LNCAP-POL-GENA-GOODA TRANSLATION OF ORF111-10 PGD-P1 PGD-P2 | (61)<br>(58)<br>(32)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1) | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC |
| GI_4185943_EMB_CAA76882.1_ GI_4185947_EMB_CAA76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF AB047240 TRANSLATION OF P38670P-LINK TRANSLATION OF POL349-LINK LNCAP-GENOMEA-POLORF TRANSLATION OF LNCAP-POL-GENA-GOODA TRANSLATION OF OF1111-10 PGD-P1        | (61)<br>(58)<br>(32)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1) | FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHYIDDILC<br>FTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHCIDDILC |

|                                     |       | 121 180  |
|-------------------------------------|-------|--|
| GI_4185939_EMB_CAA76879.1_          | (118) | AAETKDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLGMQIENRKIKPQKIEIRKD  |
| GI_4185943 EMB CAA76882.1           |       | AAEMKDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLEMQIENRKIKPPKIEIRKD  |
| GI 4185947 EMB CAA76885.1           |       | AAETKDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLGMQIENRKIKPQKIEIRKD  |
| GI 5931705 EMB CAB56603.1           |       | AAETKDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLGMQIENRKIKPQKIBIRKD  |
| ENV OF AB047240                     | (1)   |  |
| TRANSLATION OF P386TOP-LINK         | (1)   |  |
| TRANSLATION OF POL349-LINK          | (1)   |  |
| LNCAP-GENOMEA-POLORF                | (1)   |  |
| TRANSLATION OF LNCAP-POL-GENA-GOODA | (1)   |  |
| TRANSLATION OF ORF111-10            | (1)   |  |
| PGD-P1                              | (1)   | IENRKIKPQKIEIRKD   |
| PGD-P2                              | (1)   |  |
| PGDP3                               | (1)   |  |
| CONSENSUS                           | (121) |  |
|                                     |       |  |
|                                     |       | 181 240  |
| GI_4185939_EMB_CAA76879.1_          | (178) | LKTLNDFQKLLGDINWIRPTLGIPTYAMSNLFSILRGDSDLNSKRMLTPEATKEIKLVE  |
| GI_4185943_EMB_CAA76882.1_          | (181) | LKTLNDFQKLLGDINWIRPTLGIPTYAMSNLFSILRGDSDLNSKRMLTPEATKEIKLVE  |
| GI_4185947_EMB_CAA76885.1_          |       | LKTLNDFQKLLGDINWIRPTLGIPTYAMSNLFSILRGDSDLNSKRMLTPEATKEIKLVE  |
| GI_5931705_EMB_CAB56603.1_          | (152) | LKTLNDFQKLLGDINWIRPTLGIPTYAMSNLFSILRGDSDLNSKRMLTPEATKEIKLVE  |
| ENV OF AB047240                     | (1)   |  |
| TRANSLATION OF P386TOP-LINK         | (1)   |  |
| TRANSLATION OF POL349-LINK          | (1)   |  |
| LNCAP-GENOMEA-POLORF                | (1)   |  |
| TRANSLATION OF LNCAP-POL-GENA-GOODA | (1)   |  |
| TRANSLATION OF ORF111-10            | (1)   |  |
| PGD-P1                              | (17)  |  |
| PGD-P2                              | (1)   |  |
| PGDP3                               | (1)   |  |
| CONSENSUS                           | (181) |  |
|                                     |       |  |
|                                     |       |  |
|                                     |       |  |
|                                     |       | 241 300  |
| GI_4185939_EMB_CAA76879.1_          | (238) | KIQSAQINRIDPLAPLOLLIFATAHSPTGIIIONTDLVEWSFLPHSTVKTFTLYLDOLAT   |
| GI_4185943_EMB_CAA76882.1_          | (241) | KIQSAQINRIDPLAPLOLLIFATAHSPTSII ONTDLVKWSFLPHSTYKTFTLYLDOMAT   |
| GI_4185947_EMB_CAA76885.1_          | (238) | KIQSAQINRIDPLAPLQLLIFATAHSPTSIIIQNTDLVEWSFLPHSTYKTFTLYLDQ A  |
| GI_5931705_EMB_CAB56603.1_          |       | KIQSAQINRIDPLAPLQLLIFATAHSPTSII ONTDLVEWSFLPHSTYKTFTLYLDQEAT   |
| ENV OF AB047240                     | (1)   | MAT  |
| TRANSLATION OF P386TOP-LINK         | (1)   |  |
| TRANSLATION OF POL349-LINK          | (1)   |  |
| LNCAP-GENOMEA-POLORF                | (1)   | DHLAPLOILIFOTAHSLTAIICONTDLVDWSFLPHSTEKTFTLYLDOMAT   |
| TRANSLATION OF LNCAP-POL-GENA-GOODA | (1)   | DHLAPLOILIFGTAHSLTAIIVONTDLVEWSFLPHSTEKTFTLYLDOMAT   |
| TRANSLATION OF ORF111-10            |       | YKKAGSDHLAPLQLLIFFTAHSLTLIIQNTDLVDWSFLPHSTKTFTLYLDQMAT   |
| PGD-P1                              | (17)  |  |
| PGD-P2                              | (1)   | ***************************************  |
| PGDP3                               | (1)   |  |
| CONSENSUS                           | (241) | D LAPLQLLIFATAHS TGIIIQNTDLVEWSFLPHSTVKTFTLYLDQMAT   |
|                                     |       |  |
|                                     |       | 201  |
| GI_4185939_EMB_CAA76879.1_          | 12001 | 301 360<br>LIGQTRLRIIKLCGNDPDKIVVPLTKEQVRQAFINSGAWKIGLANF GIIDNHYPKTKIF  |
| GI_4185943_EMB_CAA76882.1           | (200) | LIGQTRLRIIKLCGNDPDKIVVPLTKEQVRQAFINSGAWKIGLANFYGIIDNHYPKTKIF   |
| GI_4185947_EMB_CAA76885.1           | (202) | LIGOTRLRIIKLCGNDPDKIVVPLTKEQVRQAFINSGAWKIGLANFYGIIDNHYPKTKIF   |
| GI_5931705 EMB CAB56603.1           | (272) | LIGPTRLRIIKLCGNDPDKIVVPLTKEOVROAFINSGAWRIGLANFYGIIDNHYPKTKIF   |
| ENV OF AB047240                     | (4)   | LIGQGRLRIITLCGNDPDKITVPFNKQQVRQAFISSGAWQIGLANFIGIIDNHYPKTKIF   |
| TRANSLATION OF P386TOP-LINK         |       | DIGOGRAPHILICONDEDELIVERNAÇOVAÇAFISSGAMQIGLANFAGIIDNHYPKTKIF   |
| TRANSLATION OF POL349-LINK          | (1)   |  |
| LNCAP-GENOMEA-POLORF                |       | LIGOGRLRIITLCGNDPDKITVPFNKQOVROAFISSGAWQIGLANFGGIIDNHYPKTKIF   |
| TRANSLATION OF LNCAP-POL-GENA-GOODA | (51)  | LIGOGRERIITECGNDPDKITVPFNKQOVRQAFISSGAWQIGLANFEGIIDNHYPKTKIF   |
| TRANSLATION OF ORF111-10            | (57)  | LIGOGRIRITICGNDPDKITVPFNKQQVRQAFISSGAWQIGLANFAGIIDNHYPKTKIF  |
| PGD-P1                              | (17)  | PIOGOGRAFITICONDI DELIVETERINO VA VOLTI I BOGANO I GLANESSI I DINHI PETELLE  |
| PGD-P2                              |       |  |
| PGDP3                               |       |  |
| CONSENSUS                           |       | LIGQ RLRII LCGNDPDKI VP K QVRQAFI SGAW IGLANFLGIIDNHYPKTKIF  |
| CONSTRIBUTION                       | (301) | HIGG REAL ECONDEDIT OF K QURQUET SGAW IGLANFLGIIDNHYPKTKIF   |
|                                     |       |  |
|                                     |       |  |
|                                     |       | 361 420  |
| GI_4185939 EMB CAA76879.1           | (358) | 420 QFLKLTTWILPKITRREPLENALTVFTDGSSNGKAAYTGPKERVIKTPYQSAQRAELVAV   |
| GI_4185943_EMB_CAA76882.1           | (361) | QFLKMTTWILPKITREPLENALTVFTDGSSNGKAAYTGPKERVIKTQYQSAQRAELVAV  |
| GI_4185947_EMB_CAA76885.1           | (35R) | OFLKLTTWILPKITREPLENALTVFTDGSSNGKAAYTGPKERVIKTPYOSAORAELVAV  |
| GI_5931705_EMB_CAB56603.1           | (332) | OFLKLTTWILPKITREPLENALTVFTDGSSNGKVAYTGPKERVIKTPYOSAORAELVAV  |
| ENV OF AB047240                     | (64)  | QFLKLTTWILPKITREPLENALTVFTDGSSNGKVAYTGPKERVIKTPYQSAQRAELVAV  |
| TRANSLATION OF P386TOP-LINK         | (1)   | QFIRADITWIDEATTREEPLEMADITYFIDGSSNGRAATTGPKERVIKTPYQSAQRAELVAV   |
| TRANSLATION OF POL349-LINK          | (10)  | QFLKLTTWILPKITRREPGSSNGKAAITGPKERVIKTPYQSAQRAELV   |
| LNCAP-GENOMEA-POLORF                |       |  |
| TRANSLATION OF LNCAP-POL-GENA-GOODA | (171) | QFLKLTTWILPKITRREPLENALTVFTDGSSNGKAAYTGPKERVIKTPYQSAQRAELVAV   |
| TRANSLATION OF ORF111-10            | (177) | OFLKLTTWILPKITRREPLENALTVFTDGSSNGKAAYTGPKERVIKTPYOSAQRABLVAV   |
| PGD-P1                              | /177  | QFLKLTTWILPKITRREPLENALTVFTDGSSNGKAAYTGPKERVIKTPYQSAQRAELVAV   |
| PGD-P1<br>PGD-P2                    | (11)  | 173 3 1910 A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   |
|                                     | (±/   | KAAYTGPKERVIKTPC   |
| PGDP3<br>CONSENSUS                  |       | OFF OF THE THE TRANSPORT OF THE THE THREE PROPERTY AND THE TRANSPORT OF TH |
| COMBENSUS                           | (20T) | QFLKLTTWILPKITRREPLENALTVFTDGSSNGKAAYTGPKERVIKTPYOSAORAELVAV   |

| GI_4185939_EMB_CAA76879.1<br>GI_4185943_EMB_CAA76882.1<br>GI_4185947_EMB_CAA76885.1<br>GI_5931705_EMB_CAB56603.1<br>ENV OF AB047240<br>TRANSLATION OF P386T0P-LINK<br>TRANSLATION OF POL349-LINK<br>LNCAP-GENOMEA-POLORF<br>TRANSLATION OF LNCAP-POL-GENA-GOODA<br>TRANSLATION OF OFF111-10           | (421)<br>(418)<br>(392)<br>(124)<br>(31)<br>(28)<br>(171)<br>(171)                                 | 480 ITVLODFDOPINIISDSAYVVQATRDVETALIKYSMDDQLNQLFNLLQQTVRKRNFPFYI ITVLQDFDQPINIISDSAYVVQATRDVETALIKYSMDDQLNQLFNLLQQTVRKRNFPFYI ITVLQDFDQPINIISDSAYVVQATRDVETALIKYSMDDQLNQLFNLLQQTVRKRNFPFYI ITVLQDFDQPINIISDSAYVVQATRDVETALIKYSMDDQLNQLFNLLQQTVRKRNFPFYI ITVLQDFDQPINIISDSAYVVQATRDVETALIKYSTDDHLNQLFNLLQQTVRKRNFPFYI ITVLQDFDQPINIISDSAYVVQATRDVETALIKYSTDDHLNQLFNLLQQTVRKRNFPFYI ITVLQDFDQPINIISDSAYVVQATRDVETALIKYSTDDHLNQLFNLLQQTVRKRNFPFYI ITVLQDFDQPINIISDSAYVVQATRDVETALIKYSTDDHLNQLFNLLQQTVRKRNFPFYI ITVLQDFDQPINIISDSAYVVQATRDVETALIKYSTDDHLNQLFNLLQQTVRKRNFPFYI   |
|---|--|--|
| PGD-P1<br>PGD-P2<br>PGDP3   | (17)<br>(17)<br>(1)  |  |
| CONSENSUS   | (421)  | ITVLQDFDQPINIISDSAYVVQATRDVETALIKYS DD LNQLFNLLQQTVRKRNFPFYI   |
| GI 4185939 EMB CAA76879.1<br>GI 4185943 EMB CAA76882.1<br>GI 4185947 EMB CAB56603.1<br>GI 5931705 EMB CAB56603.1<br>ENV OF AB047240<br>TRANSLATION OF P386TOP-LINK<br>TRANSLATION OF PCL349-LINK<br>LNCAP-GENOMEA-POLORF<br>TRANSLATION OF ORF111-10<br>PGD-P1<br>PGD-P2                              | (481)<br>(478)<br>(452)<br>(184)<br>(31)<br>(28)<br>(231)<br>(231)<br>(237)<br>(17)<br>(17)        | 481  THIRAHTNI.PGPLTKANEQADLLVSSALIKAOELHALTHVNAAGLKNKFDVTWKQAKDIV THIRAHTNI.PGPLTKANEQADLLVSSALIKAOELHALTHVNAGLKNKFDVTWKQAKDIV THIRAHTNI.PGPLTKANEQADLLVSSALIKAQELHALTHVNAAGLKNKFDVTWKQAKDIV THIRAHTNI.PGPLTKANEQADLLVSSAFIKAQELHALTHVNAAGLKNKFDVTWKQAKDIV THIRAHTNI.PGPLTKANEQADLLVSSAFIKAQELLALTHVNAAGLKNKFDVTWKQAKDIV THIRAHTNI.PGPLTKANEQADLLVSSAFIKAQELLALTHVNAAGLKNKFDVTWKQAKDIV THIRAHTNI.PGPLTKANEQADLLVSSAFIKAQELLALTHVNAAGLKNKFDVTWKQAKDIV THIRAHTNI.PGPLTKANEQADLLVSSAFIKAQELLALTHVNAAGLKNKFDVTWKQAKDIV THIRAHTNI.PGPLTKANEQADLLVSSAFIKAQELLALTHVNAAGLKNKFDVTWKQAKDIV  |
| CONSENSUS<br>PGDP3  |  | THIRAHTNLPGPLTKANEQADLLVSSA IKAQBL ALTHVNAAGLKNKFDVTWKQAKDIV   |
| GI_4185939_EMB_CAA76879.1_ GI_4185943_EMB_CAA76882.1_ GI_4185947_EMB_CAA76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF AB047240  TRANSLATION OF P366TOP-LINK TRANSLATION OF P0L349-LINK LNCAP-GENOMEA-POLORF  TRANSLATION OF ORF111-10 PGD-P1 PGD-P2 FGDP3 CONSENSUS                                      | (541)<br>(538)<br>(512)<br>(244)<br>(31)<br>(28)<br>(291)<br>(291)<br>(297)<br>(17)<br>(17)<br>(1) | 600 OHCTOCOVLHLPTOEAGVNPRGLCPNALWOMDVTHVPSFGRLSYVHVTVDTYSHFIWATC OHCTOCOVLHLPTOEAGVNPRGLCPNALWOMDVTHVPSFGRLSYEHVTVDTYSHFIWATC OHCTOCOVLHLPTOEAGVNPRGLCPNALWOMDVTHVPSFGRLSYEHVTVDTYSHFIWATC OHCTOCOVLDPTOEAGVNPRVCVIMHYGKWMSHMYLHLGRLSYVHVTVDTYSHFIWATC OHCTOCOVLHLSTQEAGVNPRGLCPNALWQMDGTHVPSFGRLSYVHVTVDTYSHFIWATC OHCTOCOVLHLSTQEAGVNPRGLCPNALWQMDGTHVPSFGRLSYVHVTVDTYSHFIWATC OHCTOCOVLHLSTQEAGVNPRGLCPNALWQMDGTHVPSFGRLSYVHVTVDTYSHFIWATC OHCTOCOVLHLSTQEAGVNPRGLCPNALWQMDGTHVPSFGRLSYVHVTVDTYSHFIWATC OHCTOCOVLHLSTQEAGVNPRGLCPNALWQMDGTHVPSFGRLSYVHVTVDTYSHFIWATC OHCTOCOVLHLSTQEAGVNPRGLCPNALWQMDGTHVPSFGRLSYVHVTVDTYSHFIWATC |
| GI_4185939_EMB_CAA76879.1_ GI_4185943_EMB_CAA76882.1_ GI_4185947_EMB_CAA76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF ABO47240 TRANSLATION OF P386TOP-LINK TRANSLATION OF POL349-LINK LNCAP-GENOMEA-POLORF TRANSLATION OF LNCAP-POL-GENA-GOODA TRANSLATION OF OF OFF111-10 PGD-P1 PGD-P2 PGDP3 CONSENSUS | (601)<br>(598)<br>(572)<br>(304)<br>(31)<br>(28)<br>(351)<br>(351)<br>(357)<br>(17)<br>(17)        | 660 QTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNSQG OTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNSQG OTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFOKFLSOWKISHTTGIPYNSQG OTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFOKFLSQWKISHTTGIPYNSQG QTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNSQG OTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNSQG OTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNSQG QTGESTSHAKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNSQG QTGESTSHAKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNSQG   |
| GI_4185939_EMB_CAA76879.1_ GI_4185943_EMB_CAA76882.1_ GI_4185947_EMB_CAB76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF AB047240 TRANSLATION OF P386TOP-LINK TRANSLATION OF P0L349-LINK LNCAP-GENOMEA-POLORF TRANSLATION OF LNCAP-POL-GENA-GOODA TRANSLATION OF OFF111-10 PGD-P1 PGD-P2 PGDP3 CONSENSUS    | (661)<br>(658)<br>(632)<br>(364)<br>(31)<br>(28)<br>(411)<br>(411)<br>(417)<br>(17)<br>(17)<br>(1) | A20 QAIVERTNRTLKTQLVKQKEGGDSKECTTPQMQLNLALYTLNFLNIYRNQTTTSAEQHLT QAIVERTNRTLKTQLVKQKEGGDSKECTTPQMQLNLALYTLNFLNIYRNQTTTSAEQHLT QAIVERTNRTLKTQLVKQKEGGDSKECTTPQMQLNLALYTLNFLNIYRNQTTTSAEGHLT QAIVERTNRTLKTQLVKQKEGGDSKECTTPQMQLNLALYTLNFLNIYRNQTTTSAEHLT QAIVERTNRTLKTQLVKQKEGGDSKECTTPQMQLNLALYTLNFLNIYRNQTTTSAKQHLT QAIVERTNRTLKTQLVKQKEGGDSKECTTPQMQLNLALYTLNFLNIYRNQTTTSAKQHLT QAIVERTNRTLKTQLVKQKEGGDSKECTTPQMQLNLALYTLNFLNIYRNQTTTSAKQHLT QAIVERTNRTLKTQLVKQKEGGDSKECTTPQMQLNLALYTLNFLNIYRNQTTTSAKQHLT QAIVERTNRTLKTQLVKQKEGGDSKECTTPQMQLNLALYTLNFLNIYRNQTTTSAKQHLT  |

| GI_4185939_EMB_CAA76879.1_ GI_4185943_EMB_CAA76882.1_ GI_4185947_EMB_CAA76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF AB047240 TRANSLATION OF P386TOP-LINK TRANSLATION OF P0L349-LINK LNCAP-GENOMEA-POLORF TRANSLATION OF LNCAP-POL-GENA-GOODA TRANSLATION OF ORF111-10 PGD-P1 PGD-P2 PGDP3 CONSENSUS       | (721)<br>(718)<br>(691)  | 780 GKKNSPHEGKLIWWKDSKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPI GKKNSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPI GKKNSPHEGKLIWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPI GKKNSPHEGKLI  GKKHSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPI GKKHSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPI GKKHSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPI GKKHSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPI GKKHSPHEGKLIWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPI GKKNSPHEGKLIWKD KNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPI GKKNSPHEGKLIC GKK SPHEGKLIWKD KNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPI |
|--|--|---|
| GI_4185939_EMB_CAA76879.1_ GI_4185943_EMB_CAA76882.1_ GI_4185947_EMB_CAA76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF ABO47240 TRANSLATION OF P0L349-LINK TRANSLATION OF P0L349-LINK LNCAP-GENOMEA-POLORF TRANSLATION OF LNCAP-POL-GENA-GOODA TRANSLATION OF ORFI11-10 PGD-P1 PGD-P2 PGD-P2 PGDP3 CONSENSUS | (781)<br>(778)<br>(703)<br>(484)<br>(31)<br>(28)<br>(531)<br>(531) | 781 840 RDAKKSTSAETETS  |
| GI_4185939_EMB_CAA76879.1<br>GI_4185943_EMB_CAA76882.1<br>GI_4185947_EMB_CAA76885.1<br>GI_5931705_EMB_CAB56603.1_<br>ENV OF AB047240<br>TRANSLATION OF P386TOF-LINK<br>TRANSLATION OF POLJ349-LINK<br>INCAP-GENOMEA-POLORF<br>TRANSLATION OF ORF111-10<br>PGD-P1<br>PGD-P2<br>PGDP3<br>CONSENSUS         | (795)<br>(792)<br>(703)<br>(544)<br>(31)<br>(28)<br>(591)<br>(591) | PICLGRAPGCLMPAVQNWLVEVPTVSPNSRFTYHMVSGMSLRPRVNYLQDFSYQRSLKFR PICLGRAPGCLMPAVQNWLVEVPTVSPNSRFTYHMVSGMSLRPRVNYLQDFSYQRSLKFR PICLGRAPGCLMPAVQNWLVEVPTVSPNSRFTYHMVSGMSLRPRVNYLQDFSYQRSLKFR PICLGRAPGCLMPAVQNWLVEVPTVSPNSRFTYHMVSGMSLRPRVNYLQDFSYQRSLKFR   |
| GI_4185939_EMB_CAA76879.1<br>GI_4185943_EMB_CAA76882.1<br>GI_4185947_EMB_CAA76885.1<br>GI_5931705_EMB_CAB56603.1<br>ENV OF AB047240<br>TRANSLATION OF P386TOP-LINK<br>TRANSLATION OF F0L349-LINK<br>LNCAP-GENOMEA-POLORF<br>TRANSLATION OF ORF111-10<br>FGD-P1<br>FGD-P1<br>PGD-P2<br>PGDP3<br>CONSENSUS | (795)<br>(792)<br>(703)<br>(604)<br>(31)<br>(28)<br>(651)<br>(651) | QSST DSQDEQNGDVRRTDEVAIH  |
| GI_4185939_EMB_CAA76879.1_ GI_4185947_EMB_CAA76882.1_ GI_4185947_EMB_CAA76885.1_ GI_5931705_EMB_CAB56603.1_ ENV OF AB047240 TRANSLATION OF P386TOP-LINK TRANSLATION OF P01349-LINK LNCAP-GENOMEA-POLORF TRANSLATION OF LNCAP-POL-GENA-GOODA TRANSLATION OF ORF111-10 PGD-P1 PGD-P2 PGD-P3 CONSENSUS      | (819)<br>(816)<br>(703)<br>(664)<br>(31)<br>(28)<br>(711)<br>(711) | CPSAQVSPAVDS LTESLDKHKHKKLQSFYPWBATEKGESTPRPEIISPVEGP   |

|                                     |        | 1021     | 1035    |
|-------------------------------------|--------|----------|---------|
| GI 4185939 EMB CAA76879.1           | (873)  |          |         |
| GI_4185943_EMB_CAA76882.1_          | (876)  |          |         |
| GI 4185947 EMB CAA76885.1           | (873)  |          |         |
| GI 5931705 EMB CAB56603.1           | (703)  |          |         |
| ENV OF AB047240                     | (724)  | LWPDTTLE | FGLEIKL |
| TRANSLATION OF P386TOP-LINK         | (31)   |          |         |
| TRANSLATION OF POL349-LINK          | (28)   |          |         |
| LNCAP-GENOMEA-POLORF                | (764)  |          |         |
| TRANSLATION OF LNCAP-POL-GENA-GOODA | (771)  | LWPDTTLE | FGLEIKL |
| TRANSLATION OF ORF111-10            | (777)  | LWPDTTLE | FGLEIKL |
| PGD-P1                              | (17)   |          |         |
| PGD-P2                              | (17)   |          |         |
| PGDP3                               | (17)   |          |         |
| CONSENSUS                           | (1021) |          |         |

|                             |       | 1  |
|-----------------------------|-------|--|
| GI 4185940 EMB CAA76880.1   | (1)   |  |
| GI 4185944 EMB CAA76883.1   | (1)   |  |
| GI 4185948 EMB CAA76886.1   | (1)   |  |
| GI 5931706 EMB CAB56604.1   | (1)   |  |
| ENV OF AB047240             |       | MATLIGQGRLRIITLCGNDPDKITVPFNKQQVRQAFISSGAWQIGLANFLGIIDNHYPK  |
| TRANSLATION OF E207TOP-LINK | (1)   | **************************************                       |
| TRANSLATION OF ENV287-LINK  | (1)   |  |
| TRANSLATION OF T20.22A-23   | (1)   |  |
|                             |       |  |
| PGD-E1                      | (1)   |  |
| PGD-E2                      | (1)   | ***************************************                      |
| PGD-E3                      | (1)   |  |
| CONSENSUS                   | (1)   |  |
|                             |       |  |
|                             |       | 61 120   |
| CT 410E040 DMD CDATCOOC 1   | /= \  |  |
| GI_4185940_EMB_CAA76880.1_  |       |  |
| GI_4185944_EMB_CAA76883.1_  | (1)   |  |
| GI_4185948_EMB_CAA76886.1_  | (1)   | ***************************************                      |
| GI_5931706_EMB_CAB56604.1_  | (1)   |  |
| ENV OF AB047240             |       | KIFQFLKLTTWILPKITRREPLENALTVFTDGSSNGKAAYTGPKERVIKTPYQSAQRAE  |
| TRANSLATION OF E207TOP-LINK | (1)   |  |
| TRANSLATION OF ENV287-LINK  | (1)   |  |
| TRANSLATION OF T20.22A-23   | (1)   |  |
| PGD-E1                      | (1)   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~                      |
| PGD-E2                      | (1)   |  |
| PGD-E3                      | (1)   |  |
| Consensus                   | (61)  |  |
|                             |       |  |
|                             |       | 101  |
| GT 4195940 PMP C7776000 1   | /11   | 121 180  |
| GI_4185940_EMB_CAA76880.1_  |       |  |
| GI_4185944_EMB_CAA76883.1_  | (1)   |  |
| GI_4185948_EMB_CAA76886.1_  | (1)   |  |
| GI_5931706_EMB_CAB56604.1_  | (1)   | ***************************************                      |
| ENV OF AB047240             | (121) | VAVITVLQDFDQPINIISDSAYVVQATRDVETALIKYSTDDHLNQLFNLLQQTVRKRNFF |
| TRANSLATION OF E207TOP-LINK | (1)   |  |
| TRANSLATION OF ENV287-LINK  | (1)   |  |
| TRANSLATION OF T20.22A-23   | (1)   |  |
| PGD-E1                      | (1)   |  |
| PGD-E2                      | (1)   |  |
| PGD-E3                      | (1)   |  |
| CONSENSUS                   | (121) |  |
| COMPRISON                   | (161) |  |

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|                             |            | 181 240  |
|-----------------------------|------------|--|
| GI_4185940_EMB_CAA76880.1   | (1)        |  |
| GI 4185944 EMB CAA76883.1   | (1)        |  |
| GI 4185948 EMB CAA76886.1   | (1)        |  |
| GI_5931706_EMB_CAB56604.1   | (1)        |  |
|                             |            |  |
| ENV OF AB047240             | (181)      |  |
| TRANSLATION OF E207TOP-LINK | (1)        | ***************************************  |
| TRANSLATION OF ENV287-LINK  | (1)        |  |
| TRANSLATION OF T20.22A-23   | (1)        |  |
| PGD-E1                      | (1)        |  |
| PGD-E2                      | (1)        |  |
| PGD-E3                      | (1)        |  |
| CONSENSUS                   | (181)      |  |
| COMBENSOS                   | (101)      |  |
|                             |            |  |
|                             |            | 0.41   |
| CT 4105040 END CRASCOCO S   |            | 241 300  |
| GI_4185940_EMB_CAA76880.1_  |            | ***************************************  |
| GI_4185944_EMB_CAA76883.1_  | (1)        |  |
| GI_4185948_EMB_CAA76886.1_  | (1)        |  |
| GI_5931706_EMB_CAB56604.1   | (1)        |  |
| ENV OF AB047240             | (241)      | DIVQHCTQCQVLHLSTQEAGVNPRGLCPNALWQMDGTHVPSFGRLSYVHVTVDTYSHFIW   |
| TRANSLATION OF E207TOP-LINK | (1)        |  |
| TRANSLATION OF ENV287-LINK  |            |  |
| TRANSLATION OF T20.22A-23   | (1)        |  |
|                             |            |  |
| PGD-E1                      | (1)        |  |
| PGD-E2                      | (1)        |  |
| PGD-E3                      | (1)        |  |
| CONSENSUS                   | (241)      |  |
|                             |            |  |
|                             |            |  |
|                             |            | 301  |
| GI_4185940_EMB_CAA76880.1_  | (1)        |  |
| GI_4185944_EMB_CAA76883.1   | (1)        | ***************************************  |
| GI_4185948_EMB_CAA76886.1   | (1)        | ***************************************  |
| GI_5931706 EMB CAB56604.1   | (1)        |  |
| ENV OF AB047240             | (301)      | ATCOTCECTCUMENT I CCENTROTIDERI PUDNODOROGRA BONEL COMPLEMENT  |
| TRANSLATION OF E207TOP-LINK |            | ATCQTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYN   |
|                             | (1)        |  |
| TRANSLATION OF ENV287-LINK  | (1)        |  |
| TRANSLATION OF T20.22A-23   | (1)        |  |
| PGD-E1                      | (1)        |  |
| PGD-E2                      | (1)        |  |
| PGD-E3                      | (1)        |  |
| CONSENSUS                   | (301)      |  |
|                             |            |  |
|                             |            | 361 \ 420  |
| GI_4185940_EMB_CAA76880.1   | (1)        | 420  |
| GI_4185944_EMB_CAA76883.1   | (1)        | MQRKAPPRRRHRNRAPLTHKMNKMVTSEEQMKL  |
| GI 4185948 EMB CAA76886.1   | (1)        | MQRKAPPRRRRHRNRAPLTHKMNKMVTSEEQMKL   |
|                             | 1 1        |  |
| GI_5931706_EMB_CAB56604.1_  | (1)        | GOGOT TITION OF THE THE THE TABLE TO THE TAB |
| ENV OF AB047240             |            | SQGQAIVERTNRTLKTQLVKQKEGGDSKECTTPQMQLNLALYTLNFLNIYRNQTTTSAKQ   |
| TRANSLATION OF E207TOP-LINK | (1)        |  |
| TRANSLATION OF ENV287-LINK  | (1)        | ************************************   |
| TRANSLATION OF T20.22A-23   | (1)        | MNPSEMQRKAPPRRRHRNRAPLTHKMNKMVTSEEQMKL   |
| PGD-E1                      | (1)        | TANDAMA AND MANAGEMENT OF THE PROPERTY OF THE  |
| PGD-E2                      | (1)        |  |
| PGD-E3                      | (1)        |  |
| CONSENSUS                   |            |  |
| CONSENSOS                   | (361)      |  |
|                             |            |  |
|                             |            | 421 490  |
| GI_4185940_EMB CAA76880.1   | 1351       |  |
|                             | (35)       | PSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVVSLPMPAGAAAA   |
| GI_4185944_EMB_CAA76883.1_  |            | PSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVVSLPMPAGAAAA   |
| GI_4185948_EMB_CAA76886.1_  | (35)       | THE ROTAL PROPERTY OF THE PROP |
| GI_5931706_EMB_CAB56604.1_  | (1)        |  |
| ENV OF AB047240             | (421)      | HLTGKKHSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYN   |
| TRANSLATION OF E207TOP-LINK | (1)        |  |
| TRANSLATION OF ENV287-LINK  | (1)        |  |
| TRANSLATION OF T20.22A-23   |            |  |
|                             | (An)       | DSTKKARDDTWAALKKI, TALLATIO DATTU DATTU ART TALLATIO ART  |
|                             | (40)       | ${\tt PSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVVSLPMPAGAAAA}$   |
| PGD-E1                      | (1)        |  |
| PGD-E1<br>PGD-E2            | (1)<br>(1) |  |
| PGD-E1                      | (1)        |  |

| GI_4185940_EMB CAA76880.1                               | (95)           | 481 540  |
|---|----------------|--|
| GI_4185944_EMB_CAA76883.1                               | (95)           | NYTYWAYVPFPP-ITRAVTWMDNPTEVYVNDSVWVPGPIDDRCPAKPEEEGMMINISIGY<br>NYTYWAYVPFPP-ITRAVTWMDNPIEVYVNDSVWVPGPTDDHCPAKPEEEGMMINISIGY   |
| GI_4185948 EMB CAA76886.1                               | (95)           | NYTYWAYVPFPP- RAVTWMDNPTEVYVNDSVWVPGPIDDRCPAKPEEEGMMINISIGY  |
| GI_5931706_EMB_CAB56604.1                               | (1)            |  |
| ENV OF AB047240   | (481)          | EPIGDAKKRASTEMYTPVTWMDNPIEVYVNDSVWVPGPTDDRCPAKPEEEGMMINISIVY   |
| TRANSLATION OF E207TOP-LINK                             | (1)            |  |
| TRANSLATION OF ENV287-LINK                              | (1)            |  |
| TRANSLATION OF T20.22A-23                               | (100)          | NYTYWAYVPFPP-LERAVTWMDNPTEVYVNDSVWVPGPIDDRCPAKPEEEGMMINISIGY   |
| PGD-E1  | (1)            |  |
| PGD-E2<br>PGD-E3  | (1)<br>(1)     |  |
| CONSENSUS   | (481)          |  |
|   | (101)          | DI VIWMDNF EVIVNDSVWVPGP DD CPAKPEEEGMMINISI Y   |
|   |                |  |
|   |                | 541 600  |
| GI_4185940_EMB_CAA76880.1_                              | (154)          | HYPPICLGRAPGCIMPAVQNWLVEVPTVSPICRFTYHMVSGMSLRPRVNYLQDFSYQRSL   |
| GI_4185944_EMB_CAA76883.1_                              | (154)          | RYPPICLGRAPGCIMPAVQNWLVEVPTVSPISRFTYHMVSGMSLRPRVNYLODFSYORSF   |
| GI_4185948_EMB_CAA76886.1_                              | (154)          | HYPPICLGRAPGCEMPAVQNWLVEVPTVSPICRFTYHMVSGMSLRPRVNYLQDFSYQRSL   |
| GI_5931706_EMB_CAB56604.1_                              | (48)           | HYPPICLGRAPGC MPAVQNWLVEVPTVSPNSRFTYHMVSGMSLRPRVNCLQDFSYQRSL   |
| ENV OF AB047240   | (541)          | RYPPICLGRAPGC MPAVQNWLVEVPTVSPNSRFTYHMVSGMSLRPRVNYLQDFSYQRSL   |
| TRANSLATION OF E207TOP-LINK TRANSLATION OF ENV287-LINK  | (1)            | FSYQRSL  |
|   | (1)            |  |
| TRANSLATION OF T20.22A-23 PGD-E1                        | (159)          | ${\tt HYPPICLGRAPGC} \verb"MPAVQNWLVEVPTVSPICRFTYHMVSGMSLRPRVNYLQDFSYQRSL$   |
| PGD-E1  | (1)            |  |
| PGD-E2<br>PGD-E3  | (1)            |  |
| CONSENSUS   | (541)          |  |
| CONDENDOD   | (341)          | YPPICLGRAPGCLMPAVQNWLVEVPTVSP RFTYHMVSGMSLRPRVN LQDFSYQRSL   |
| <b>\</b>  |                |  |
|   |                | 601  |
| GI_4185940_EMB_CAA76880.1_                              | (214)          | KFRPKGKPCPKEIPKESKNTEVLVWEECVANSAVILONNEFGTIIDWAPRGOFYHNCSGO   |
| GI_4185944_EMB_CAA76883.1_                              | (214)          | KFRPKGKPCPKEIPKESKNTEVLVWEECVANSAVILONNEFGTIIDWAPRGORYHNCSGO   |
| GI_4185948_EMB_CAA76886.1_                              | (214)          | KFRPKGKPCPKEIPKESKNTEVLVWEECVANSAVILONNEFGTIIDWAPRGORYHNGSGO   |
| GI_5931706_EMB_CAB56604.1_                              | (108)          | KFRPKGKTCPKEIPKGSKNTEVLVWEECVANSVVILONNEFGTIIDWAPRGOFYHNCSGO   |
| ENV OF AB047240<br>TRANSLATION OF E207TOP-LINK          | (601)          | KFRPKGKPCPKEIPKESKNTEVLVWEECVANSAVILQNNEFGTIIDWAPRGQFYHNCSGQ   |
| TRANSLATION OF ENV287-LINK                              | (1)            | KFRPKGKPCPKEIPKESKNTEVL  |
| TRANSLATION OF T20.22A-23                               | (210)          |  |
| PGD-E1  | (213)          | KFRPKGKPCPKEIPKESKNTEVLVWEECVANSAVILQNNEFGTIIDWAPRGQFYHNCSGQ<br>RPKGKPCPKEIPKESC   |
| PGD-E2  | (1)            |  |
| PGD-E3  | (1)            |  |
| CONSENSUS   | (601)          | KFRPKGKPCPKEIPKESKNTEVLVWEECVANS VILQNNEFGTIIDWAPRGQFYHNCSGQ   |
|   |                | The state of the s |
|   |                |  |
| GI_4185940_EMB_CAA76880.1                               | (074)          | 661 720  |
| GI_4185940_EMB_CAA76880.1_<br>GI_4185944_EMB_CAA76883.1 | (274)          | TQSCQSAQVSPAVDSDLTESLDKHKHKKLQSFYPWEWGEKGISTPRPKI  |
| GI_4185948_EMB_CAA76886.1                               | (274)          | TQSCPSAQVSPAVDSDLTESLDKHKHKKLQSFYPWEWGEKGISTPRPKI SPVSGPEHPE   |
| GI_5931706_EMB_CAB56604.1                               | (2/4)          | TQSCPSAQVSPAVDSDLTESLDKHKHKKLQSFYPWEWGEKGISTPRPKI SPVSGPEHPE   |
| ENV OF AB047240   | (168)<br>(661) |  |
| TRANSLATION OF E207TOP-LINK                             |                | TQSCPSAQVSPAVDSDLTESLDKHKHKKLQSFYPWEWGEKGISTPRPEI  |
| TRANSLATION OF ENV287-LINK                              | (1)            | SDLTESLDKHKHKKLQSFYPWEWGEKGI   |
| TRANSLATION OF T20.22A-23                               | (279)          | TQSCPSAQVSPAVDSDLTESLDKHKHKKLQSFYPWEWGEKGISTPRPKI  |
| PGD-E1  | (17)           | 2001 SAQ VOTAV DODDIE SIDVANCA KALQSFIPW BWGEKGISTPRPKI SPVSGPEHPE   |
| PGD-E2  | (1)            | **   |
| PGD-E3  | (1)            |  |
| CONSENSUS   | (661)          | TQSC SAQVSPAVDSDLTESLDKHKHKKLQSFYPWEWGEKGISTPRP IISPVSGPEHPE   |
|   |                |  |
|   |                |  |
|   |                | 701  |
| GI_4185940_EMB_CAA76880.1_                              | 12241          | 721 780  |
| GI_4185944_EMB_CAA76883.1                               | (334)          | LWRLTVASHHIR WSGNQTLETRDRKPFYTIDLNSS TVPLQSCKKPPYMLVVGNIVIKP<br>LWRLTVASHHIR WSGNQTLETRDRKPFYTVDLNSS TVPLQSCKKPPYMLVVGNIVIKP   |
| GI_4185948_EMB_CAA76886.1                               | (334)          | LWRLTVASHHIR WSGNQTLETRDRKPFYTTDLNSSTTVPLQSCYKPPYMLVVGNIVIKP   |
| GI_5931706_EMB_CAB56604.1                               | (228)          | LWRLTVASHHIR WSGNQTLETRYRKPFYTIDLNSSLTVPLQSCYKPPYMLVVGNIVIKP   |
| ENV OF AB047240   | (721)          | LWPLP  |
| TRANSLATION OF E207TOP-LINK                             | (31)           |  |
| TRANSLATION OF ENV287-LINK                              | (29)           |  |
| TRANSLATION OF T20.22A-23                               |                | LWRLTVASHHIR WSGNQTLETRDRKPFYTIDLNSS TVPLQSCVKPPYMLVVGNIVIKP   |
| PGD-E1  | (17)           |  |
| PGD-E2  | (1)            | LNSS TVPLOSCKKPC   |
| PGD-E3  | (1)            |  |
| CONSENSUS   | (721)          | LW RI LNS LTVPLQSCVKP  |
|   |                |  |

| GI_4185940_EMB_CAA76880.1_ GI_4185944_EMB_CAA76883.1_ GI_4185948_EMB_CAB56604.1_ ENV OF AB047240 TRANSLATION OF ENV287-LINK TRANSLATION OF T20.22A-23 PGD-E1 PGD-E2 PGD-E3 CONSENSUS  | (394)<br>(394)<br>(288)<br>(727)<br>(31)<br>(29)          | DSQTITCENCRLLTCID TFN QHRILLVRAREGVWIPVSMDRPWEASPSVHILTEVLKG  |
|---|---|---|
| GI_4185940_EMB_CAA76880.1_ GI_4185944_EMB_CAA76883.1_ GI_4185948_EMB_CAA76886.1_ GI_5931706_EMB_CAB56604.1_ ENV OF AB047240 TRANSLATION OF E207TOP-LINK TRANSLATION OF ENV287-LINK TRANSLATION OF T20.22A-23 PGD-E1 PGD-E2 PGD-E3 CONSENSUS | (454)<br>(454)<br>(348)<br>(739)<br>(31)<br>(29)          | VLNRSKRFIFTLIAVIMGLIAVTATAAVAGVALHSSVQSVNFVNDWQKNSTRLWNSQSSI  |
| GI_4185940_EMB_CAA76880.1_ GI_4185944_EMB_CAA76883.1_ GI_4185948_EMB_CAB56604.1_ ENV OF AB047240 TRANSLATION OF E207TOP-LINK TRANSLATION OF ENV287-LINK TRANSLATION OF T20.22A-23 PGD-E1 PGD-E2 PGD-E3 CONSENSUS                            | (514)<br>(514)<br>(408)<br>(739)<br>(31)<br>(29)<br>(519) | DQKLANQINDLRQTVIWMGDRLMSLEHRFQLQCDWNTSDFCITPQIYNESEHHWDMVRRH  |
| GI_4185940_EMB_CAA76880.1_ GI_4185944_EMB_CAA76883.1_ GI_4185948_EMB_CAA76886.1_ GI_5931706_EMB_CAB56604.1_ ENV OF AB047240 TRANSLATION OF E207TOP-LINK TRANSLATION OF ENV287-LINK TRANSLATION OF T20.22A-23 PGD-E1 PGD-E2 PGD-E3 CONSENSUS | (574)<br>(574)<br>(468)<br>(739)<br>(31)<br>(29)<br>(579) | 1020 LQGREDNLTLDISKLKEQIFEASKAHLNLVPGTEAIAGVADGLANLNPVTWVKTIGSTTI LQGREDNLTLDISKLKEQIFEASKAHLNLVPGTEAIAGVADGLANLNPVTWVKTIGSTTI LQGREDNLTLDISKLKEQIFEASKAHLNLVPGTEAIAGVADGLANLNPVTWVKTIGSTTI LQGREDNLTLDISKLKEQIFEASKAHLNLVPGTEAIAGVADGLANLNPVTWIKTIRSTMI LQGREDNLTLDISKLKEQIFEASKAHLNLVPGTEAIAGVADGLANLNPVTWVKTIGSTTI |
| GI_4185940_EMB_CAA76880.1_ GI_4185944_EMB_CAA76883.1_ GI_4185948_EMB_CAA76886.1_ GI_5931706_EMB_CAB56604.1_ ENV OF AB047240 TRANSLATION OF E207TOP-LINK TRANSLATION OF ENV287-LINK TRANSLATION OF T20.22A-23 PGD-E1 PGD-E2 PGD-E3 CONSENSUS | (634)<br>(634)<br>(528)<br>(739)<br>(31)<br>(29)          | 1021 1081 INLILILVCLFCLLLVCRCTQQLRRDSDHRERAMMTMAVLSKRKGGNVGKSKRDQIVTVSV INLILILVCLFCLLLVCRCTQQLRRDSDHRERAMMTMAVLSKRKGGNVGKSKRDQIVTVSV INLILILVCLFCLLLVCRCTQQLRRDSDHRERAMMTMAVLSKRKGGNVGKSKRDQIVTVSV INLILILVCLFCLLLVCRCTQQLRRDSDIENGP INLILILVCLFCLLLVCRCTQQLRRDSDHRERAMMTMAVLSKRKGGNVGKSKRDQIVTVSV                   |